



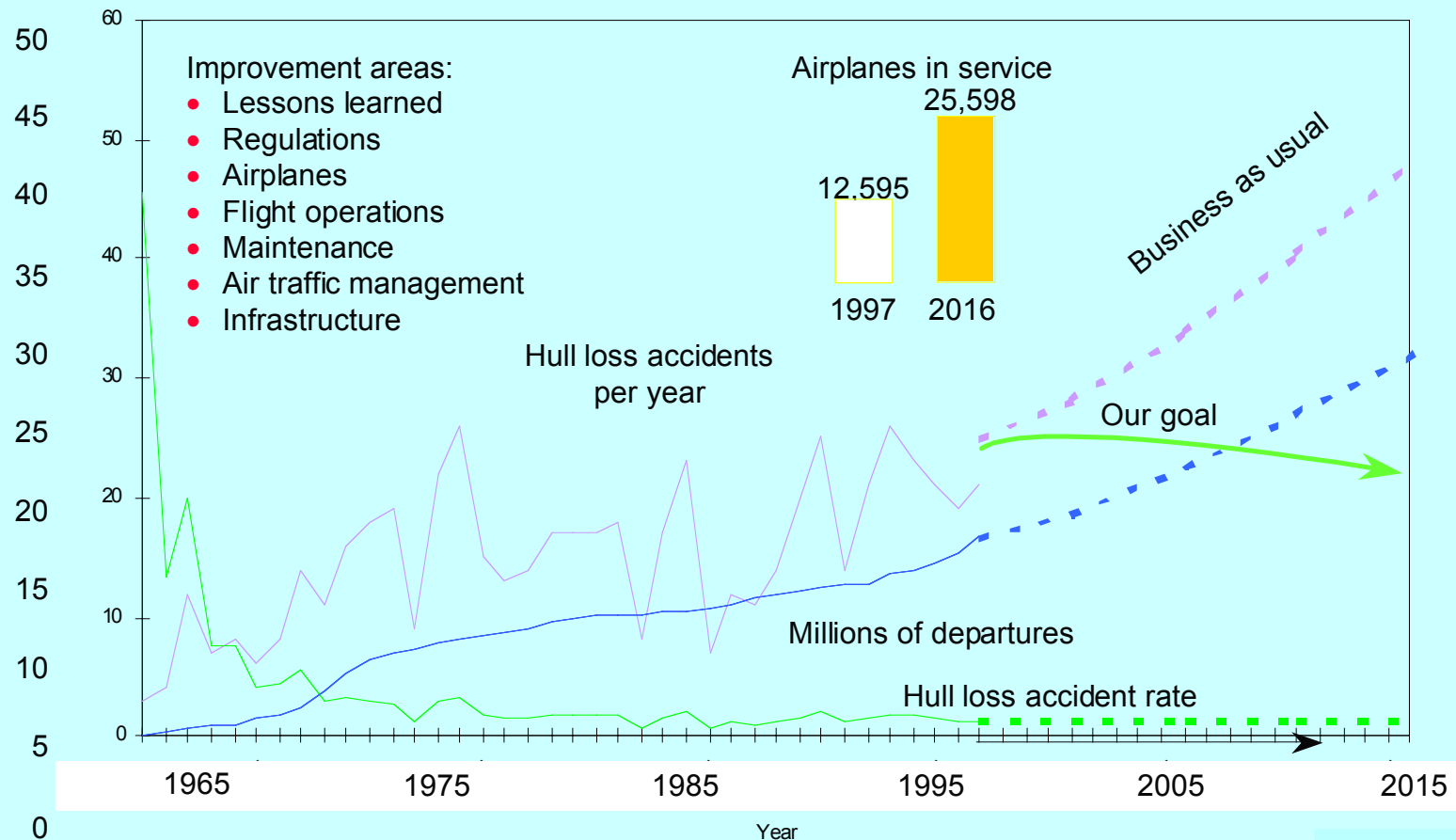
Commercial Aviation Safety Team (CAST) Bringing Industry and Government Together

Mr. H. Keith Hagy, Manager
Engineering/Accident Investigation Section
Engineering & Air Safety Department

Third GAIN World Conference
November 3-5, 1998
Long Beach Hilton
Long Beach, California

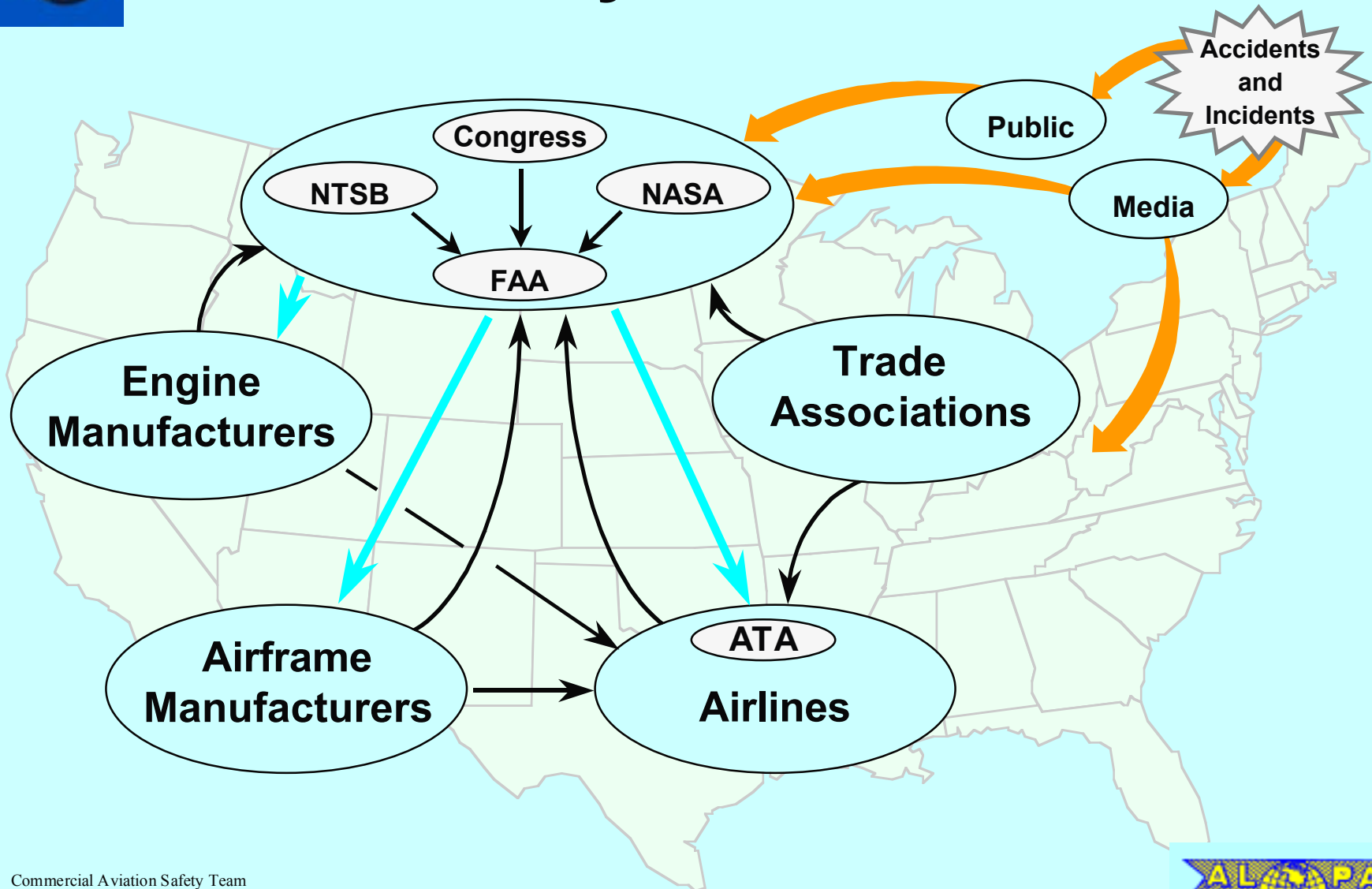


We Need to Continuously Improve Aviation Safety





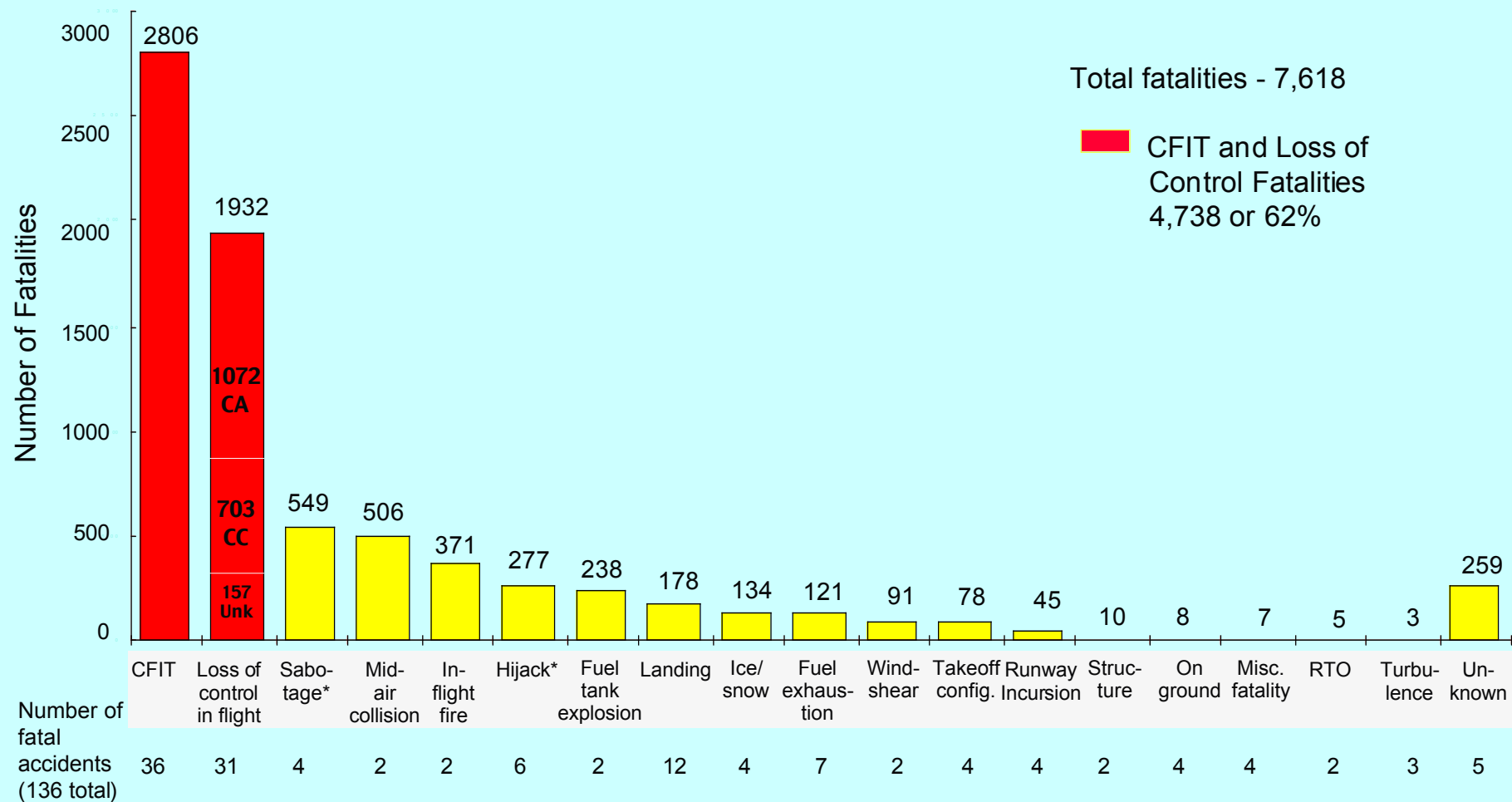
U.S. Safety Environment





Worldwide Airline Fatalities

Classified by Type of Event 1988 - 1997



Loss of Control: CA = Control Available (16); CC = Control Compromised (13); Unk = Unknown/TBD (2)

4/13/98 AT-001f

Note:

- Includes multiple non-onboard fatalities
- Single fatality, non-onboard accidents are excluded (except King Air runway incursion 1/18/90)

* Exceptions to statistical accident definition

CFIT = Controlled Flight Into Terrain

RTO = Refused Takeoff





BARRIERS

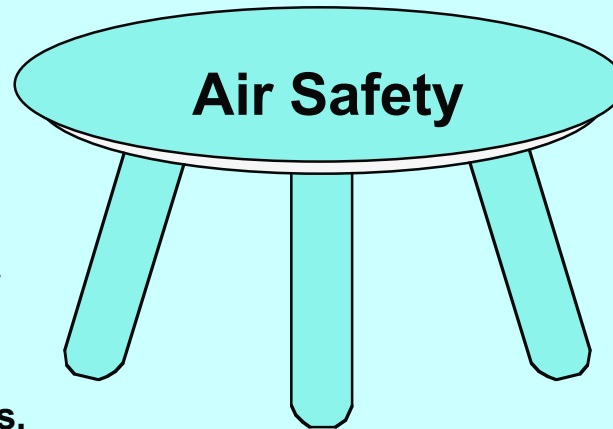
- **What to Work**
 - Identify Vital “High Payoff” Prevention items
- **Limited Resources**
 - People/Expertise
 - Money
- **Competing Safety Agendas**
 - Based on differing perspectives
 - Proactive vs. Reactive





Safety Responsibilities Are Shared

Safe System = Manufacturers + Operators + Government



Manufacturers

- Safe airplane design
- Safety enhancing technology development
- Flight and maintenance operations, recommendations, documents, training, and support
- Maintenance planning
- Safety related analysis
- Safety initiatives

Operators

- Operations policy and procedures
- Airplane/pilot publications
- Approved maintenance program
- Maintenance, policy, and procedures
- Maintenance publications
- Safety program
- Training

Government

- Aviation law *
- Operations specification
- Rules and regulations
- Inspectors policy, procedures, and training
- Airline policy and procedures requirements
- Safety, health, environmental law, and regulations
- Navigation facilities/operations
- Airport facilities
- Departure enroute, arrival, approach policy, and procedures
- Air traffic control services
- Safety related analysis

* Including Air Traffic Service providers





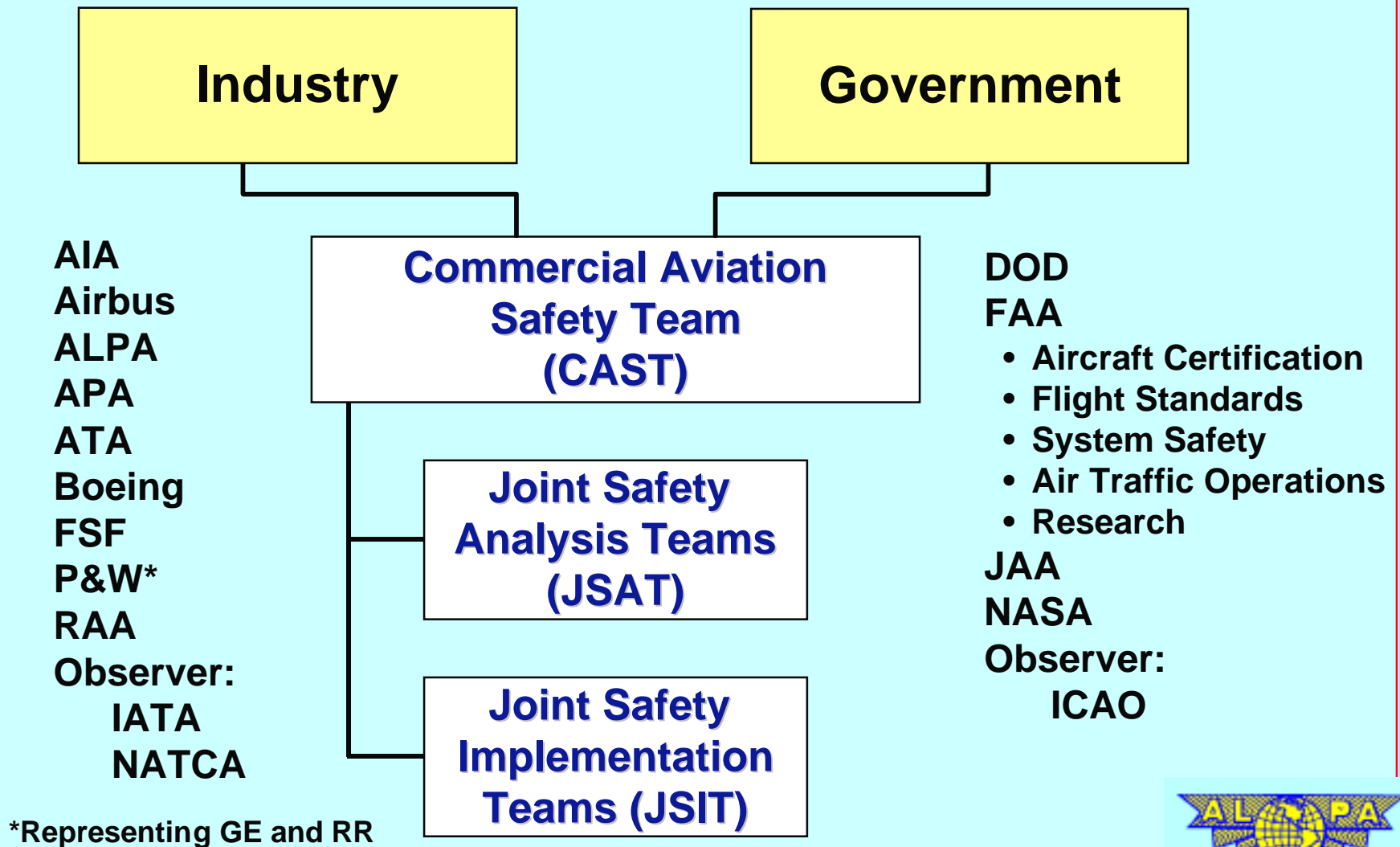
Commercial Aviation Safety Team (CAST)

- **Industry & Government Working Together**
 - **Combined Expertise & Resources**
- **Data Driven Approach**
 - **Identifying Issues & Developing an Integrated Safety Strategy**





U.S. Safety Coordination Program





CAST Safety Agenda

- **Flight Safety**
- **Cabin Safety**
- **Engineering, Maintenance & Material**
- **Safety Data**





CAST Safety Agenda

- **Flight Safety**
 - **Controlled Flight into Terrain**
 - **Loss of Control**
 - **Approach & Landing**
 - **Human Factors Error**
 - **Runway Incursions**
 - **Weather**





CAST Safety Agenda

- **Cabin Safety**
 - **Fire Resistant/Retardant Materials**
 - **Turbulence Related Injuries**
 - **Improved Child Seat Restraints**





CAST Safety Agenda

- **Engineering, Maintenance & Material**
 - **Uncontained Engine Failure**
 - **Maintenance Human Error**





CAST Safety Agenda

- **Safety Data**
 - ➔ **Data Protections**
 - ➔ **Data Collection and Analysis Methods**
 - ♦ **FOQA**
 - ♦ **Confidential Reporting Systems**
 - ♦ **Accident/Incident Data Taxonomy**





Joint Safety Analysis Team(s) (JSAT)

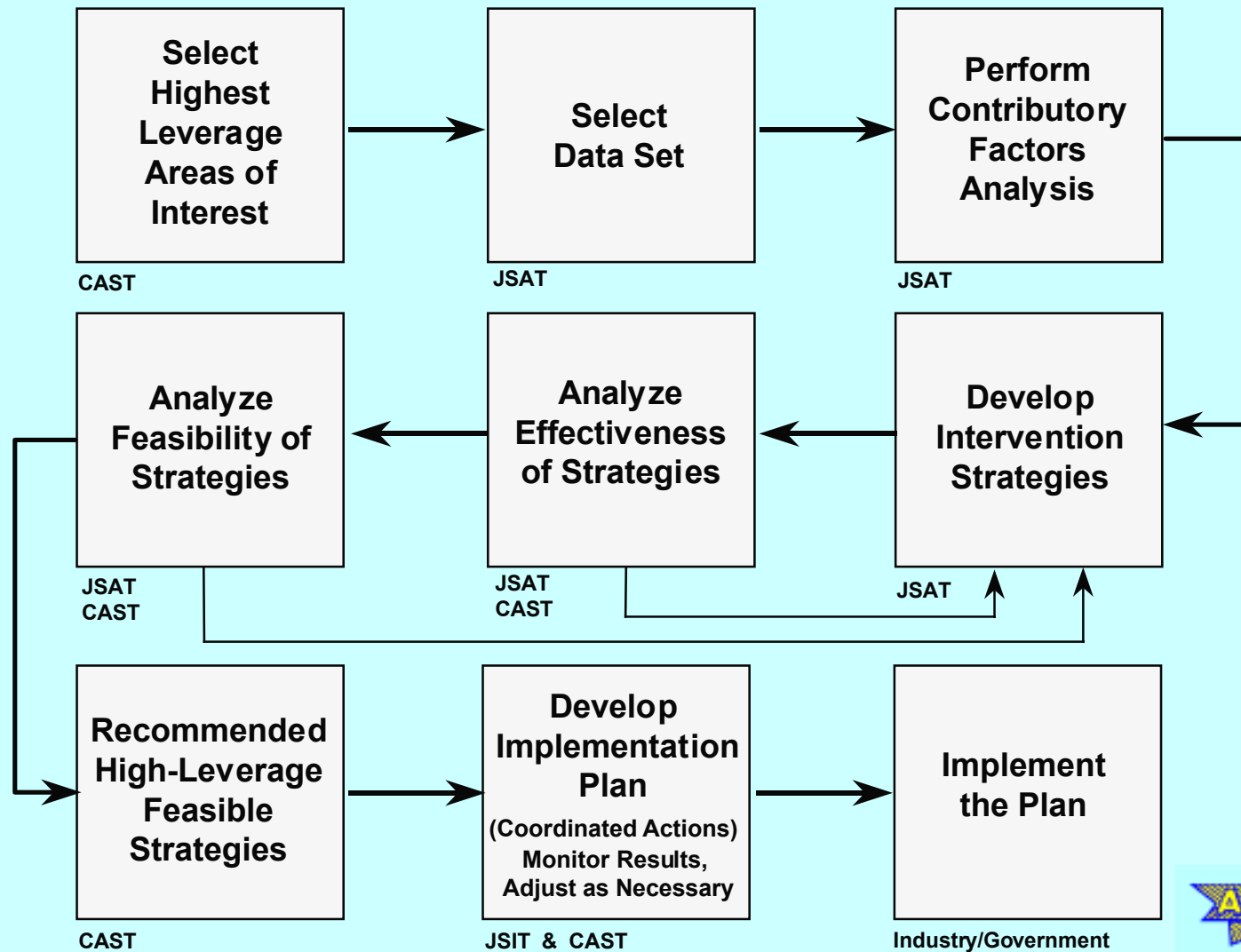
JSAT Objective -

- **Industry and government working together to develop common understanding of accident and incident data to support alignment of data-driven action plans for 1999 and on.**





CAST Process for Defining and Implementing a Data-Driven Safety Enhancement Plan





JSAT Activities Underway

- **CFIT (Proof of Concept)**
- **Approach and Landing**
- **Runway Incursions**
- **Loss of Control**





Joint Safety Implementation Team (JSIT)

- **Develop and coordinate programs to implement the “high payoff” intervention strategies identified**





Joint Safety Implementation Team (JSIT)

- **Team made up of “Decision Making” representatives from the stakeholders affected by the intervention strategies or those responsible for implementation of those strategies**





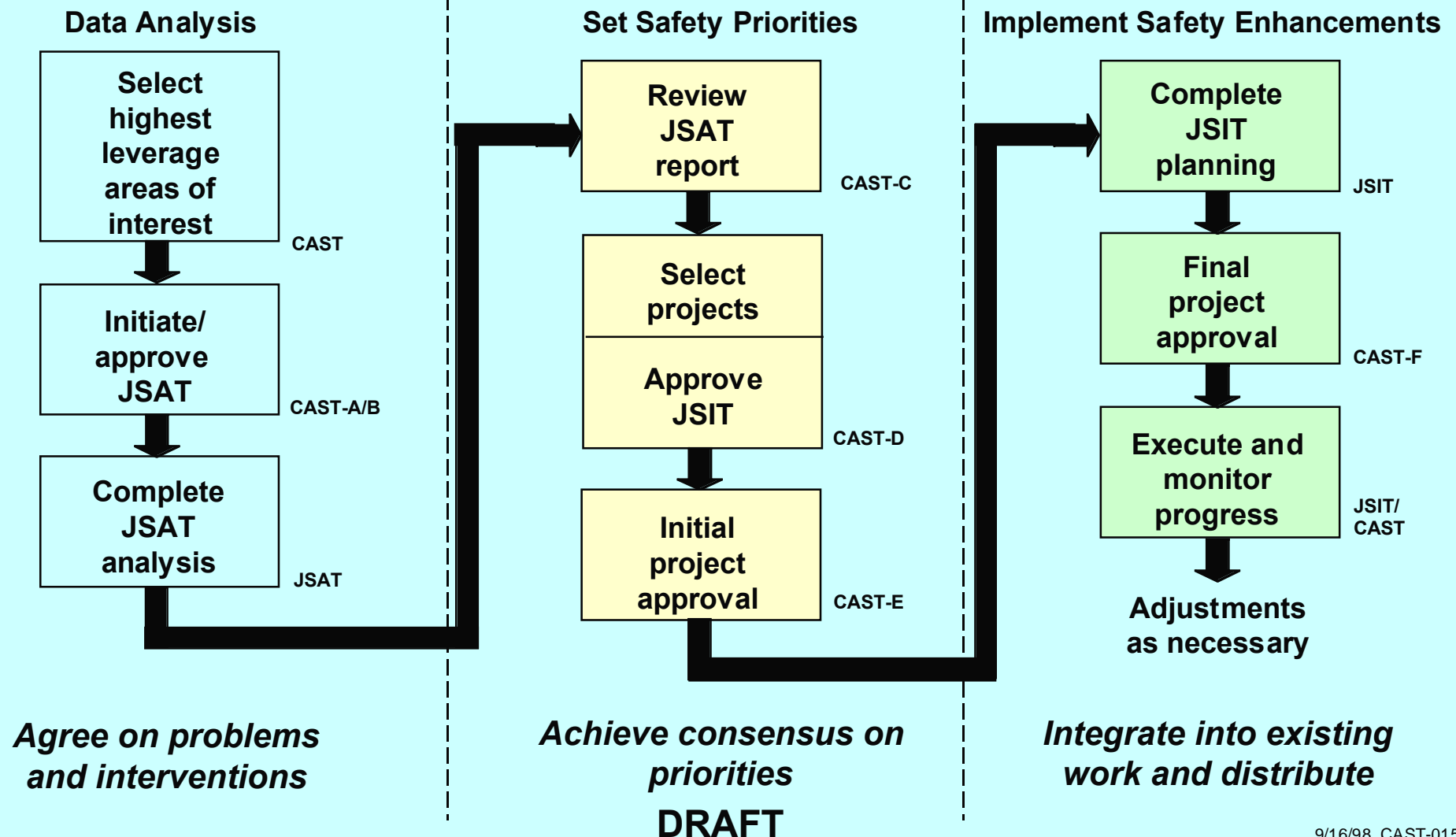
Joint Safety Implementation Team (JSIT)

- **Program includes**
 - **Feasibility determination**
 - **Implementation plan**
 - **Method to track progress**



DRAFT

CAST Process for Defining and Implementing a Data-Driven Safety Enhancement Plan





Solutions

- **All participants in the global aviation system must work together**
 - ➔ **Need to communicate & combine resources, expertise, and perspectives to develop a common safety agenda**
 - ➔ **Utilize a methodology to identify root causes and “high payoff” interventions**
 - ➔ **Each participant must be committed to following through and implementing the interventions identified**



